NH Department of Environmental Services (NHDES)
Response to Comments on
Draft Section 401 Water Quality Certification
WQC # 2013-FERC-001
for Monadnock Hydroelectric Project, FERC No. 6597
January 31, 2014

On December 19, 2013, the New Hampshire Department of Environmental Services (DES) issued the following draft Section 401 Water Quality Certification (WQC) for public review and comment:

WQC # 2013-FERC-001
Project Name: Monadnock Hydroelectric Project (MHP)
Owner/Applicant: Monadnock Paper Mills, Inc.

The public comment period ended on January 20, 2014. Two comment letters were received; one from the United States Department of Interior Fish and Wildlife Service (USFWS) and the other from Monadnock Paper Mills, Inc (MPM).

DES' response to comments are provided below (in bold, italics) followed by a summary of other substantive changes made to the final WQC. Copies of the comment letters are provided at the end of this document.

RESPONSE TO COMMENTS FROM THE USFWS

USFWS Comment #1:

The Service supports the draft WQC conditions pertaining to mode of operation, impoundment fluctuation limits, and refill rates. However, we disagree with NHDES' determination that the existing bypass flow of 13 cfs at the Monadnock, Pierce and Paper Mills developments sufficiently protect aquatic habitat. As noted in Section D-11 of the WQC, while the Service agrees that 13 cfs is an appropriate bypass flow for the Monadnock facility (given the short length of the reach), we recommended that any new Federal Energy Regulatory Commission license issued for the project increase bypass flows at the Pierce and Paper Mill developments, based on results of the instream flow study conducted by the Applicant.

The narrative and associated tables provided in Sections D-11(e) and D-11(f) of the WQC appear to support the Service's flow recommendations for the Pierce and Paper Mill bypass reaches (40 cfs and 60 cfs, respectively); however, the actual conditions imposed in Section E-9(h) call for the status quo to be maintained.[1]

According to data in the tables included and referenced in the WQC, raising the bypass flow at Pierce from 13 cfs up to 40 cfs would increase the weighted usable area (WUA) by nearly 30 percent on average, for all target species except juvenile longnose dace. At Paper Mill, increasing the bypass flow from 13 cfs up to 60 cfs would provide over 35 percent more WUA, on average, for all target species/life stages evaluated. These habitat gains are substantial and would enhance the fishery resources within the affected reaches.

We can find no rationale within the draft WQC for NHDES to support the continued release of only 13 cfs to the Pierce and Paper Mill bypass reaches. Therefore, the Service respectfully recommends that in the final WQC, NHDES modify Condition E-9(h) to require a flow of 40 cfs (or inflow, if less) to the Pierce bypass reach and a flow of 60 cfs (or inflow, if less) to the Paper Mill bypass reach, as supported by the instream flow study results, or provide a scientific justification for the proposed bypass releases.

DES Response to USFWS Comment #1: NO CHANGES MADE.

DES acknowledges that based on the study conducted by MPM, increasing the minimum flow at the Pierce and Paper Mill bypass reaches would increase habitat (i.e., weighted usable area) which would likely enhance the fishery resource within the affected bypass reaches for most of the target species studied. Under most circumstances, DES would recommend a higher bypass flow based on results of such studies. However, as explained in Finding D.11.i (provided below), DES has decided, in this particular case, that increasing bypass flows is not justified based on conversations with the New Hampshire Fish and Game Department (NHFGD), whose main concern is the warm-water fishery in Powder Mill Pond, which is used by many anglers and is the site of several bass fishing tournaments each year (see Finding D.11).

Finding D.11.i[1] states the following: "The NHFGD has advised DES (personal communication with Carol Henderson and Executive Director, Glenn Normandeau in December 2013), that although the NHFGD recognizes the potential benefit of increasing bypass flows on aquatic habitat and the fish and benthic community in the bypass reaches, their primary concern is the fishery within Powder Mill Pond. Increasing bypass flows could result in more frequent water level fluctuations in Powder Mill Pond to meet the short-term energy demand, which could, in turn, negatively impact the fishery in Powder Mill Pond. With this in mind, the existing minimum bypass flow of 13 cfs at the 3 developments, is considered not ideal but acceptable, in this case, by the NHFGD."

As mentioned in Finding D.11, in addition to limiting the frequency of water surface fluctuations in Powder Mill Pond (which would likely intensify if bypass flows were increased), another factor which entered into the decision is that the NHFGD manages the bypass and riverine reaches of the Monadnock, Pierce and Paper Mill

[1] The following revisions were made to Finding D.11.i. : Executive Director, Glenn Normandeau was added to the first sentence and the end of the last sentence was revised to read "... is considered not ideal, but acceptable, in this case by the NHFGD.".

developments as a put and take trout fishery (versus a naturally reproducing trout fishery) which includes the annual stocking of brown and rainbow trout below the Powder Mill and Monadnock dams. Consequently, since the bypass reaches are managed as a put and take fishery for trout, and the managed sections make up a relatively small portion of the Contoocook overall, NHFGD did not feel it was necessary to provide ideal habitat in these reaches to support trout at the potential expense of the Powder Mill fishery..

Finally, it should be noted that condition E.9.h of the draft WQC (which is now condition E.9.g) states that the 13 cfs minimum bypass flows are contingent upon completion of a water quality study that demonstrates dissolved oxygen standards are being met in the bypass reaches. If they are not, a study will be conducted to determine the bypass flows that are necessary to meet dissolved oxygen standards. The new approved bypass flow shall then become the minimum bypass flow. Therefore if any of the bypass reaches do not meet dissolved oxygen standards at a flow of 13 cfs, higher bypass flows will be required.

RESPONSE TO COMMENTS FROM THE MPM

MPM Comment #1:

In general, MPM's position is that the terms and conditions of the WQC include requirements beyond those that are necessary to meet the fundamental purposes of the Clean Water Act (CWA) and the state regulations implementing the CWA. As noted in the draft WQC, the CWA and implementing state regulations require only that the discharge complies with state water quality standards applicable to the classification for the receiving surface water body, for the purpose of insuring that surface water quality is adequate to protect existing and designated uses and that the surface waters provide for the protection and propagation of fish, shellfish and wildlife and for the recreation in and on the surface waters. For a WQC associated with a long term FERC license, these requirements are necessarily subject to a standard of reasonableness under the circumstances and not second by second perfection. MPM's project has existed and been in operation for over 95 years, and there is no dispute that under the vast majority of circumstances, the project is in compliance with state water quality standards, existing and designated uses are adequately protected and there are adequate fish populations. The concern expressed and resulting operational restrictions and monitoring requirements are, at least in part, intended to address infrequent naturally occurring conditions of low flow and high temperature which are not caused by the project, which would create arguably adverse effects even in a naturally flowing stream without impoundments.

DES Response to MPM Comment #1: NO CHANGES MADE.

DES believes that the conditions in the 401 Water Quality Certification are both reasonable and necessary to comply with New Hampshire surface water quality standards. .

As discussed in Finding D-9, violations of State dissolved oxygen criteria and thresholds for chlorophyll-a have been documented in Powder Mill Pond, which exists because of the Powder Mill Pond dam which is owned and operated by the Applicant. Impounding natural streams results in lower water velocities and higher residence

times which can which can lead to higher water temperatures, lower dissolved oxygen and higher levels of algae and other aquatic plants in the surface water. Although natural low flows are not caused by the project, the impoundment constructed for the Project can create conditions that make surface water more prone to water quality standard violations.

Relative to the frequency of water quality standard violations, the surface water assessment methodology[2] used by DES recognizes that natural variability in water bodies can result in infrequent exceedences of standards. Consequently, DES does not base impairment determinations on a single or infrequent exceedance of a surface water criterion.

MPM Comment #2:

Condition E-7

MPM notes that Condition E-7 requires a copy of the WQC and the approved Operation and Maintenance Plan (required by Condition E-10) be posted within each Project powerhouse within seven days of issuance of a new license. MPM does not take issue with this requirement of the WQC, but suggests modification of the timing. Given that Condition 10 requires MPM to submit an Operation and Maintenance Plan within two months of the effective date of a new license, MPM proposes to post a copy of the approved plan within seven days of receiving written approval of the plan from NHDES.

DES Response to MPM Comment #2: CHANGES MADE

Condition E-7 was revised to require posting within seven days of receiving written approval of the Operations and Maintenance Plan from DES.

MPM Comment #3:

Condition E-8

This condition requires that MPM provide NHDES with notification and obtain prior written approval before transfer of the WQC for the Project. FERC has jurisdiction over the transfer of FERC licenses. Prior to transferring ownership of the FERC license MPM would be required to submit an application for transfer of license to FERC for approval. Upon receipt of such an application, FERC issues a public notice to commence a 30 day period to file comments and motions to intervene. MPM feels this process is sufficient for NHDES to review transfer of Project and WQC ownership rather than require MPM to complete an additional, duplicative review and approval process specific to the WQC. MPM suggests that this condition be limited to requiring MPM to specifically notice NHDES of the FERC application for transfer of the license or to delete this condition in its entirety.

[2] State of New Hampshire 2012 305(b) and 303(d) Consolidated Assessment and Listing Methodology. New Hampshire Department of Environmental Services. July 2013. NHDES-R-WD-12-2. (see http://des.nh.gov/organization/divisions/water/wmb/swqa/documents/calm.pdf)

DES Response to MPM Comment #3: CHANGES MADE.

DES removed the requirement for DES approval of transfers of certification to new owners and revised Condition E-8 to ensure DES is copied on any applications sent to FERC for transfer of ownership and provided with contact information for the new owner and date of transfer after the transfer occurs.

MPM Comment #4:

Powder Mill Pond Elevation Requirements

Condition E-9 a. and b. identifies impoundment level requirements similar to those identified in FERC's Environmental Assessment. MPM has the same concern regarding rigid timeframes that were expressed in our August 16, 2013 comments to FERC.

While MPM acknowledges the drawdown timeframes above are consistent with our proposed operations, we note that Powder Mill Dam flashboards are also subject to fail during winter and spring due to icing and flood flows. Therefore MPM requests that Condition E-9 be revised to include the following bold text:

> The Applicant shall maintain Powder Mill impoundment water surface elevation at or above 677.44 feet NGVD (top of the flashboards) from January 1 to February 28 and May 1 through August 31 **(or as close to these target dates as is practical based upon river conditions), when flashboards are in place or 675.44 feet NGVD when the flashboards have failed.**

On an annual basis river conditions may prevent MPM from safely replacing failed flashboards during the above noted timeframes for maintaining top of flashboard elevations. MPM does not oppose targeting the top of flashboard elevation and dam crest, respectively, during the time frames identified in draft WQC, but is concerned that the pond level elevations specified for absolute dates will be difficult and, at times, impossible to meet from year to year depending on river flow and icing conditions. Therefore, the Operation Compliance Monitoring Plan that will be required by FERC should address Commission and agency notification procedures during such occurrences, if appropriate.

MPM also notes that Condition E-9(d.) requires that flashboards be reinstalled as soon as possible after failure or temporary removal for other reasons. MPM suggests that this language be modified to require that flashboards be reinstalled as soon as reasonably practicable.

DES Response to MPM Comment #4: CHANGES MADE.

To address situations when water levels may fall below the prescribed elevations, the beginning of the first sentence of Condition E-9.b was revised as follows: " Unless due to operating emergencies beyond the control of the Applicant (such as flashboard failure due to high flows), pre-approved maintenance, or other reasons specified in the DES approved Operations and Maintenance Plan (see Condition E-10), the Applicant shall maintain the Powder Mill Pond ... ". To be consistent, similar language was added to the second sentence of Condition E-9.b, as well as to Conditions E.9.c and E.9.e (see DES Response to MPM Comment #9).

In addition, Condition E-9.d was revised to require flashboards to be reinstalled as soon as reasonably practicable.

MPM Comment #5:

Drawdown Rate

Condition E-9 c. stipulates that except in the case of emergencies, the maximum drawdown rate of Powder Mill Pond shall be no more than six (6) inches per day. MPM does not feel this requirement is required for the protection and propagation of wildlife resources given the overall project operating conditions. Should the pond be drawn down for the purposes of supplementing hydroelectric generation, the rate will be relatively constant and steady, with the intent that inflow to the pond will allow the pond to be refilled quickly without prolonged periods of draw down. Limiting a two foot draw down to six inches per day may effectively limit MPM's ability to supplement generation to a six inch draw down and/or prolong the drawdown period to last four days to achieve a two foot draw.

DES Response to MPM Comment #5: NO CHANGES MADE.

DES disagrees and believes that a maximum drawdown rate of 6 inches per day is needed to support and maintain a balanced, integrated and adaptive community of organisms in accordance with Env-Wq 1703.19 of the NH Surface Water Quality Regulations. As reported in Finding D-10, the USFWS noted that the mussel survey conducted by the Applicant showed lower mussel densities in beds found in shallower elevations (i.e., in beds more frequently exposed to routine project operations), and that limiting pond fluctuations could increase mussel distribution and abundance in the upper 2 feet of the Powder Mill Pond. It is further stated that the mussel populations described by the Applicant (i.e., mainly one tolerant species with some indication of the presence of two other species) do not necessarily represent a healthy condition.

Possible factors contributing to the lack of distribution and abundance of mussels in the upper 2 feet, may be drawdown rates that are too rapid for mussels to react and move into deeper waters combined with the significant amount of potential habitat that is exposed and unavailable when water levels are lowered 2 feet. Much of the littoral area of Powder Mill Pond has relatively shallow slopes. Consequently, a significant portion of the littoral zone (124 acres or 28% - see Finding D.13.b) is exposed when water levels are drawn down 2 feet. If the rate of drawdown is properly controlled so that mussels and other aquatic organisms have adequate time to temporarily relocate when water levels are drawn down, they are more likely to use the habitat in the upper two feet more often which could benefit their distribution and abundance.

As indicated in Finding D-14.d, the NHFGD recommends a maximum drawdown rate of 6 inches per day to allow adequate time for aquatic organisms, such as mussels to relocate. Currently, there are no restrictions on how fast the Applicant may draw down the impoundment. As reported in Finding D-14.a and b[3], it is estimated that the

[3] Finding D-14.b. was revised as an error was found in the calculations used to determine the drawdown rate assuming 300 cfs outflow with no inflow. For comparison a similar calculation of the drawdown rate was also added that assumes an outflow of 300 cfs and an inflow of 100 cfs.

Applicant can currently draw Powder Mill Pond down 2 feet in approximately 1.5 days at an average draw down rate of approximately 16 inches per day. This assumes an outflow of 300 cfs (the optimal release for generation according to the Applicant) and no inflow. Similarly, at an outflow of 300 cfs and an inflow of 100 cfs it would take approximately 2.2 days to lower the pond 2 feet at an average drawdown rate of approximately 11 inches per day . These drawdown rates are approximately 2 to 2 1/2 times higher than the rate recommended by NHFGD.

Relative to the statement that limiting a 2 foot drawdown to 6 inches per day may effectively limit the Applicant's ability to supplement generation to a 6 inch drawdown and/or prolong the drawdown period to last 4 days to achieve a 2 foot draw, DES notes the following:

- ***The Applicant will still be able to generate power assuming a 6 inch/day drawdown. As indicated in Finding D-14.d, a 6 inch/day drawdown corresponds to an outflow of approximately 110 cfs which exceeds the minimum flow needed to generate power and maintain minimum bypass flows at the Monadnock (90 cfs) and Pierce (70 cfs) facilities. Since power can still be generated and since the Applicant claims that storage ponding and releasing in Powder Mill Pond is "rarely conducted for meeting short-term energy demands"[4], DES does not believe that implementation of this requirement is going to have an appreciable affect on the Applicant's ability to supplement power generation.***

- ***DES concurs that it will take a minimum of 4 days to lower Powder Mill Pond 2 feet at a maximum drawdown rate of 6 inches/day. As discussed above, it is estimated that it currently takes the Applicant a minimum of approximately 2 days to draw the pond down 2 feet. DES does not believe that taking an additional 2 days (and probably less) to lower the pond at a maximum drawdown rate of 6 inches per day will have any appreciable adverse effects.***

[4] See Finding D-4.f. and p. 3-1 of the Monadnock Hydroelectric Project (FERC No 6597) Final License Application, July 2012.

MPM Comment #6:

Notification Requirements

Conditions E-9 e. and f. of the draft WQC stipulates that MPM must notify and receive approval from NHDES and NHFGD to draw down the pond for maintenance or to below two feet for any reason, unless under emergency conditions. This requirement for maintenance requires 60 day prior notice and for drawdown greater than two feet requires 30 day prior notice. MPM notes that under the current license, MPM is allowed to conduct such drawdowns and provides state and federal agencies (including FERC's New York Regional Office) with notification at least 60 days prior. The notification identifies the level of drawdown necessary, timing and duration, method for ensuring minimum flow requirements are met during the drawdown, and the opportunity for agencies to respond to the notification. In addition, MPM notifies abutting property owners as a courtesy prior to drawdowns. This provision allows agencies to assess whether timing of drawdowns pose any concern and provides an opportunity to contact MPM to discuss any concerns and potentially modify the timeframe of the planned drawdown. Therefore, MPM does not believe the "approval" condition is necessary or appropriate. Furthermore, the condition does not specify a time for response, which makes it virtually impossible for MPM to plan and contract for such maintenance.

DES Response to MPM Comment #6: CHANGES MADE.

Because many of the conditions in Condition E-9.e. and f. are similar, they have been combined into one condition (E-9.e.). Consistent with current practice, 60 day advance notice is required (except for emergencies or as specified in the DES approved Operations and Maintenance Plan required under Condition E-10).

Surface water quality standards are designed to protect and maintain designated uses such as recreation, aquatic life, fish consumption, wildlife, etc. The purpose of the 401 Water Quality Certification is to ensure that construction and operation of the Activity will not violate surface water quality standards. Obtaining approval from DES and NHFGD is required to help ensure that drawdowns for maintenance and/or below 2 feet are conducted at times that will minimize the impact on aquatic life and other designated uses in Powder Mill Pond.

Further, it is recommended that the Applicant include a request for a response by a certain date in their notification to DES and NHFGD. Typically 15 to 30 days is adequate time for DES and NHFGD to respond to such issues, although the agencies can respond sooner, if absolutely necessary.

See DES Response to MPM Comment # 9 below for additional revisions to Condition E-9.e.

MPM Comment #7:

Minimum Flows
Conditions E-9 g. and h. identify minimum flow requirements of 70 cfs in the reaches below Powder Mill Pond and downstream of the Project and 13 cfs in the Monadnock, Pierce and Paper Mill bypass reaches. The conditions state that these flows are subject to change pending additional WQ monitoring. Please see comments below relative to additional sampling under Condition E-12.

MPM is pleased to see and continues to believe that historic and in draft minimum bypass reach flows provide sufficient habitat in the very limited area of the bypass reaches to meet the standard of adequately protecting environmental resources.

DES Response to MPM Comment #7:

Please see DES Response to USFWS Comment #1 and MPM Comment # 12.

MPM Comment #8:

Impoundment Refill

Condition E-9 i. defines various refill and downstream flow requirements depending in inflow conditions. MPM has refilled impoundments for the Project by maintaining minimum flow requirements and retaining the remainder of inflow to refill the impoundments. If we are required to release a higher percentage of inflow during refill under the new WQC, under low flow conditions pond refill may potentially take significantly longer. MPM believes there is very little demonstrable benefit and the potential for a variety of unwanted consequences, from both operational and environmental perspectives, from this modification. It is MPM's intent to refill the impoundments as quickly as possible to minimize environmental effects as well as effects on abutting shoreline owners. Therefore, MPM continues to support utilizing our historical refill method.

DES Response to MPM Comment #8: NO CHANGES MADE.

Condition E-9.i (now E-9.h) outlines refill procedures after drawdowns for flashboard replacement, dam maintenance or emergency drawdown. Because some of these procedures may occur when inflow is less than the minimum required flow through the project (70 cfs), the condition establishes procedures for how much of inflow must be passed through the project during refill. Condition E-9.i (now E-9.h) does not put restrictions on refill rates when water levels are fluctuated for power generation. In that case, Condition E-9.g (now E-9.f) requires that the minimum outflow from Powder Mill Pond be 70 cfs or inflow (whichever is less). DES supports the intention of MPM to refill the pond as rapidly as possible during periods of water level fluctuation.

MPM Comment #9:

Emergencies

There are several references to operating emergencies (such as flashboard failure due to high flows). MPM notes that other conditions may also constitute emergency conditions that require drawdown. If extreme levels of precipitation are forecasted (e.g., Hurricane Irene), MPM may draw down the pond to reduce the potential for flooding. From MPM's perspective, any equipment failure resulting in lost generation is an emergency condition. For example, if a unit goes down and needs to be dewatered to inspect/repair, pond levels may need to be reduced in order to safely access the unit. MPM will identify specific conditions that are considered emergencies in the Operation Compliance Monitoring Plan that will likely be required in the FERC license.

DES Response to MPM Comment #9: CHANGES MADE.

As mentioned in DES Response to MPM Comment # 6 above, Condition E.9.e and E.9.f have been combined into one (Condition E.9.e.).

Revisions were made to clarify when notification is required and when approval is needed from DES and NHFGD prior to drawing down Powder Mill Pond. Examples are given for what would be considered emergencies, however, the condition also allows for other situations provided they are included in the DES approved Operations and Maintenance (O & M) Plan required in Condition E-10.

MPM Comment #10:

Condition E-10

a. Within two months of the effective date of the FERC license, MPM must submit for DES approval an Operation and Maintenance Plan.
b. Modifications to the plan require prior approval by DES.
c. Deviations from the plan require reporting within 24 hours.

MPM anticipates an Operation and Maintenance Plan to be required under the new FERC license and does not take issue with such a requirement within the WQC.

DES Response to MPM Comment #10: NO CHANGES MADE.

MPM Comment #11:

Condition E-11

Within three months of the effective date of the FERC license, MPM must submit for DES approval a monitoring and reporting plan for Impoundment Level and Flow.

MPM anticipates a plan for monitoring impoundment level, minimum flows, and operational data (turbine flows and generation) to be required under the new FERC license and does not take issue with such a requirement within the WQC. The WQC requires that, "To the maximum extent feasible, monitoring and recording of data shall be automated and collected continuously (i.e., at least every hour)." During the past several months, MPM has been investigating alternative methods to collecting these type of data at Project facilities. The cost of fully automating the Project to monitor and record flow and pond level data at the Project would currently be cost prohibitive. Therefore MPM will continue to investigate additional, more cost effective alternative.

DES Response to MPM Comment #11: NO CHANGES MADE.

DES will provide comments on the Monitoring and Reporting Plan for Impoundment Level and Flow after the plan is submitted to DES for approval.

MPM Comment #12:

Condition E-12

Within two months of the effective date of the FERC license, MPM must submit for DES approval and in consultation with DES, NHFGD and USFWS, a water quality Sampling and Analysis Plan (SAP).

Section D-9 of the WQC identifies a variety of conditions that may affect water quality within the Project, some of which were not sampled during relicensing due to river flow and operating condition. The results of the WQ study conducted for relicensing showed attainment of state standards throughout the project with the exception of limited occurrence on non-attainment in Powder Mill Pond, during near "worst case" conditions of low flows and high temperatures. Although Powder Mill Pond has been documented as an impaired river segment, this situation is believed to be due primarily to nutrient loading from upstream, a condition not caused by the Project and one which is likely to have been remedied by reductions in phosphorus loadings at two upstream wastewater treatment plants. MPM does not believe it appropriate to conduct an additional study in order to evaluate how a proposal to reduce impoundment fluctuation frequency and levels as are currently allowed and a reduction of upstream point source pollution may affect water quality at the project. MPM also notes that water quality sampling on the Contoocook River, upstream and downstream of the Project, has been historically conducted by the Volunteer River Assessment Program (VRAP) on behalf of the NHDES and is anticipated to continue to occur.

MPM notes that under very low flow conditions, the project is operated as it was during the relicensing studies, that is, the various developments cease generating at the noted minimum operational capacities and all downstream flow is passed over the dams. Based on these operating conditions and given the results of historical project operations and the relicensing studies, the need for additional studies in the tailraces and bypass reaches during low flows is unclear.

DES Response to MPM Comment #12: CHANGES MADE.

Condition E-10 was modified to clarify what DES expects will be included, as a minimum, in the sampling and analysis plan (SAP) and identifies the impoundments, river reaches and bypass reaches of greatest importance (based on previous sampling results). Revisions were also made to clarify that DES can adjust these requirements if there is good reason (such as new information presented by the Applicant). This

provides flexibility to adjust the plan without having to revise the WQC. Finding D-9.i was also revised to be consistent with Condition E-10.

Monitoring is needed to confirm that operation of the Project (under all conditions) does not cause or contribute to water quality standards. Findings D-9.a through h. provide a summary of the monitoring conducted by the Applicant and identify where information is missing for determining compliance. Based on Findings D-9.a through h., Finding D-9.i provides a summary of additional monitoring that DES believes is warranted, as well as the purpose of the monitoring.

As noted by the Applicant and in Finding D-9.a, sampling was not conducted by the Applicant when power was generated or with the Powder Mill Pond fluctuating in store and release mode. As discussed in Condition D-8; "The presence of dams and the subsequent creation of impoundments at each development reduces water velocity and increases river residence time beyond that which occurs under unimpounded conditions. Store and release operations manipulate water levels in Powder Mill Pond. These conditions may promote variable water quality conditions, particularly water temperature and dissolved oxygen, and can foster the development of aquatic plant communities, including phytoplankton that can influence other water quality parameters such as pH and water clarity." Sampling is needed to determine if water quality standards are being met under these conditions.

Relative to nutrient loading to Powder Mill Pond, DES concurs that nutrient loading has likely contributed to past violations of dissolved oxygen criteria and chlorophyll-a thresholds. However, for the reasons discussed above, the creation of impoundments by dams (such as the Powder Mill Pond dam) and fluctuation of impoundment levels also contribute to these violations. As discussed in Finding D-9.h, since the time sampling was conducted by the Applicant, nutrient loadings to Powder Mill Pond may have decreased due to reductions in nutrients discharged from two upstream wastewater treatment facilities. Additional sampling is therefore needed to determine if Project operations under these new loading conditions are now meeting water quality standards.

With regards to VRAP, the Applicant may propose to incorporate sampling conducted by VRAP in the Water Quality Sampling and Analysis Plan which must be submitted to DES for review and approval in accordance with Condition E-12.

As discussed in Finding D-9.e., when sampling was conducted by the Applicant, river flows were approximately two to four times higher (31 to 56 cfs) than the minimum required bypass flow of 13 cfs. Consequently sampling is needed to determine if water quality standards for dissolved oxygen are met at the minimum bypass flow of 13 cfs.

As discussed in Finding D-9.g, because no sampling was conducted by the Applicant downstream of the Paper Mill Facility, sampling is needed to determine if water quality

standards for dissolved oxygen are met at this location for the minimum flow of 70 cfs. Similar sampling is also needed in the river downstream of the Powder Mill Pond dam.

MPM Comment #13:

Condition E-13

Pending results of the SAP, MPM may be required to submit for DES approval a Remediation Plan. See comments under Conditions E-12.

MPM also notes that a remediation plan is required if "it is apparent that operation of the activity contributes to the violation". MPM suggests that a remediation plan should only be required if operation of the activity is a substantial cause of the violation.

DES Response to MPM Comment #13: CHANGES MADE.

Condition E-13 was deleted as Condition E-2 allows DES to modify the certification should "DES determine that the Activity is causing or contributing to violations of surface water quality standards". Consequently, a remediation plan can be required in the future, if necessary.

MPM Comment #14:

Condition E-14

a. Within six months of the effective date of the FERC license, MPM must submit for DES approval, an invasive plan species monitoring plan, including a provision for reporting to DES, NHFGD, USFWS and FERC.
b. MPM shall operate the project in a manner consistent with invasive species control efforts if requested by DES, NHFGD, or USFWS.

MPM believes that sufficient protocols are in place to minimize, to the extent possible, the spread of invasive species at Powder Mill Pond. NHDES has posted invasive species information at the NHFGD Boat Launch on Powder Mill Pond and has established the Weed Watchers program to assist in the identification, documentation, and removal of invasive species.

MPM is not opposed to developing a more formal monitoring plan to identify methods and frequency of monitoring based upon the existing cooperative process with NHDES to address invasive species, but as discussed in FERC's draft Environmental Assessment (EA), Staff analysis stated that there are no ongoing project-related effects known to be contributing to the spread of invasive species at the Project. Thus, MPM does not believe a licensee developed and implemented monitoring plan is necessary. Further, it is not clear what the NHDES may require for MPM to "operate the project in a manner consistent with invasive species control efforts". MPM submits that is necessary for such operating parameters to be defined by NHDES up front for MPM to reasonably evaluate the effects of any such requirements on the Project (e.g., limitations on generation) .

DES Response to MPM Comment #14: CHANGES MADE.

Since the Applicant owns and operates the dam that created Powder Mill Pond, DES believes it is appropriate that the Applicant be responsible for monitoring the spread of invasive species in the pond.

As stated in Finding D-15.e., the USFWS recommended that the Applicant be required to develop and implement a plan for monitoring and controlling invasive species and that absent sufficient monitoring and control, it is likely that the spread of noxious weeds (such as Variable Leaf Milfoil) will become abundant in Powder Mill Pond. Further, given the abundance and diversity of native wetlands within the project area, long-term monitoring and control of invasive species should be a high priority.

With regards to Condition E-14.b. that requires the Applicant to operate the Project in a manner consistent with invasive species control efforts if requested by DES, NHFGD or USFWS, we have revised this condition to be less open-ended by only requiring implementation of this condition if requested by DES. Relative to potential Project operational requirements, DES intends to work with the Applicant (and others) to develop a Long Term Management Plan (LTMP) for invasive species in Powder Mill Pond in the next year or two. DES envisions that any project operational requirements that are necessary to implement the LTMP will be specified in the LTMP. Condition E-14.b was revised to require participation in the development of the LTMP and to comply with any project operational requirements specified in the DES approved LTMP provided they do not conflict with the Certification.

MPM Comment #15:

Condition E-15

This condition requires MPM to construct, operate, maintain and evaluate upstream and/or downstream fish passage facilities as may be prescribed under Section 18 of the Federal Power Act.

MPM understands it is a common FERC license requirement to require implementation of future fish passage prescriptions that may be required but the Department of the Interior as a reservation of prescriptive authority. However, given that there are no migratory fish management goals for the river currently or planned for the near future, and other barriers to future passage exist downstream of the Project, MPM does not feel this "reopener" condition is necessary or appropriate for the WQC.

DES Response to MPM Comment #15: CHANGES MADE.

DES disagrees. Fish passage is considered by DES to be a part of the aquatic life designated use of the state surface water quality standards. Condition E-15 is included to show how fish passage is being addressed in the WQC and, in the opinion of DES, places no additional burden on the Applicant. With regards to the statement that there are no migratory fish management goals for the river currently or planned in the near future, FERC licenses are typically granted for relatively long periods (30 years) and

much can happen in that time. DES has, however, revised this condition to clarify that any fish passage requirements prescribed by the Secretary of the Interior pursuant to Section 18 of the Federal Power Act will be considered a condition of the Certification.

OTHER SUBSTANTIVE CHANGES MADE TO THE FINAL WQC

1. To correct an error in the acreage and percent of pond area that would be exposed for a 2 foot drawdown in Powder Mill Pond, Finding D-13.l.iii, was revised to indicate that at a 2 foot drawdown, 24% (124 acres) would be exposed.

2. Condition E-9.b was revised to require maintenance of the Powder Mill Pond water surface elevation at or above 676.94 NGVD(6 inches below the top of flashboards) from November 1 through December 31. This is consistent with Finding D-13.l.iii of the Certification which states the this condition is needed to support and maintain a balanced, integrated and adaptive community of organisms per Env-Wq 1703.19. " To protect hibernating wildlife from exposure, require that drawdowns in November and December be limited to no more than 6 inches below the top of the Powder Mill Pond flashboards (i.e., no less than 676.94 feet NGVD). According to the table presented in Finding D-13.b, a 6-inch drawdown would expose about 7% of the lake area (35 acres), which is much less than the area that can be currently exposed at a 2 foot drawdown (24% or 124 acres). This should improve survival of hibernating wildlife along the shores of Powder Mill Pond while still providing the Applicant with the some flexibility to operate the pond in a storage and release mode to supplement power generation (which, according to the Applicant, is rarely done for meeting short-term energy demand)."

As reported in Finding D-13.i, the average flows in November (204 cfs) and December (377 cfs) fall within the operating range of 53 cfs to 587 cfs for the turbines in the downstream developments. Therefore power can still be generated during this period even without fluctuating the pond. Further as mentioned above, the Applicant has stated that operating the pond in a storage and release mode is rarely done for meeting short-term energy demand. Consequently, the requirement to limit fluctuations to 6 inches in Powder Mill Pond during November and December is not expected to have a significant impact on power generation.

Finally, it is worth noting that the requirement to limit fluctuations to 6 inches during November and December, although considered protective for the reasons mentioned above, is less restrictive than what NHFGD recommends. As reported in Finding D-13.g., to protect hiberating wildlife, the NHFGD recommends no drawdowns from November 1 (and preferably from October 15) through February.

3. Section F. (Appeals) was updated to reflect current standard language.

Comment Letters Received

from the

United States Fish and Wildlife Service

and

Monadnock Paper Mills, Inc.

regarding the

Draft Section 401 Water Quality Certification

WQC # 2013-FERC-001

for the

Monadnock Hydroelectric Project, FERC No. 6597

United States Department of the Interior

FISH AND WILDLIFE SERVICE

New England Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5087
http://www.fws.gov/newengland

In Reply Refer To: Monadnock Paper Mills, Inc. January 16, 2014
Monadnock Hydroelectric Project, FERC No. 6597
Contoocook River
COMMENTS ON DRAFT WATER QUALITY CERTIFICATION
#2013-FERC-001

Mr. Owen David
New Hampshire Department of Environmental Services
Watershed Management Bureau
401 Certification Program
P.O. Box 95
Concord, NH 03302-0095

Dear Mr. David:

This responds to the draft Water Quality Certification (WQC) for the Monadnock Hydroelectric Project, released by the New Hampshire Department of Environmental Services (NHDES) for public comment on December 19, 2013. The U.S. Fish and Wildlife Service (Service) has reviewed the draft WQC and offers the following comments for your consideration.

The Service supports the draft WQC conditions pertaining to mode of operation, impoundment fluctuation limits, and refill rates. However, we disagree with NHDES' determination that the existing bypass flow of 13 cfs at the Monadnock, Pierce and Paper Mills developments sufficiently protect aquatic habitat. As noted in Section D-11 of the WQC, while the Service agrees that 13 cfs is an appropriate bypass flow for the Monadnock facility (given the short length of the reach), we recommended that any new Federal Energy Regulatory Commission license issued for the project increase bypass flows at the Pierce and Paper Mill developments, based on results of the instream flow study conducted by the Applicant.

The narrative and associated tables provided in Sections D-11(e) and D-11(f) of the WQC appear to support the Service's flow recommendations for the Pierce and Paper Mill bypass reaches (40 cfs and 60 cfs, respectively); however, the actual conditions imposed in Section E-9(h) call for the status quo to be maintained.[1]

[1] The last sentence of both Sections D-11(e) and D-11(f) read "Increasing the bypass reach minimum flow…would result in significant gains in WUA for the majority of species/life stages evaluated (see table below)."

According to data in the tables included and referenced in the WQC, raising the bypass flow at Pierce from 13 cfs up to 40 cfs would increase the weighted usable area (WUA) by nearly 30 percent on average, for all target species except juvenile longnose dace. At Paper Mill, increasing the bypass flow from 13 cfs up to 60 cfs would provide over 35 percent more WUA, on average, for all target species/life stages evaluated. These habitat gains are substantial and would enhance the fishery resources within the affected reaches.

We can find no rationale within the draft WQC for NHDES to support the continued release of only 13 cfs to the Pierce and Paper Mill bypass reaches. Therefore, the Service respectfully recommends that in the final WQC, NHDES modify Condition E-9(h) to require a flow of 40 cfs (or inflow, if less) to the Pierce bypass reach and a flow of 60 cfs (or inflow, if less) to the Paper Mill bypass reach, as supported by the instream flow study results, or provide a scientific justification for the proposed bypass releases.

Thank you for this opportunity to comment. If you have any questions regarding these comments, please contact Melissa Grader of this office at (413) 548-8002, extension 124.

Sincerely yours,

Thomas R. Chapman
Supervisor
New England Field Office

cc: FERC, Secretary
Michelle Hamm
Monadnock Paper Mills, Inc.
117 Antrim Road
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Reading File
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VIA EMAIL

January 20, 2014

401 Certification Program
Attention: Mr. Owen David and Mr. Gregg Comstock
NHDES Watershed Management Bureau
P.O. Box 95
Concord, NH 03301-0095

Comments on Draft 401 Water Quality Certification
for the Monadnock Hydroelectric Project (FERC No. 6597-013)

Dear Sirs:

Monadnock Paper Mills, Inc. (MPM) herein submits to New Hampshire Department of Environmental Services (NHDES) comments on the draft Water Quality Certification (WQC) in response to notice of availability for public review and comment issued by NHDES.

MPM provides the following comments on Section E. Water Quality Certification Conditions.

In general, MPM's position is that the terms and conditions of the WQC include requirements beyond those that are necessary to meet the fundamental purposes of the Clean Water Act (CWA) and the state regulations implementing the CWA. As noted in the draft WQC, the CWA and implementing state regulations require only that the discharge complies with state water quality standards applicable to the classification for the receiving surface water body, for the purpose of insuring that surface water quality is adequate to protect existing and designated uses and that the surface waters provide for the protection and propagation of fish, shellfish and wildlife and for the recreation in and on the surface waters. For a WQC associated with a long term FERC license, these requirements are necessarily subject to a standard of reasonableness under the circumstances and not second by second perfection. MPM's project has existed and been in operation for over 95 years, and there is no dispute that under the vast majority of circumstances, the project is in compliance with state water quality standards, existing and designated uses are adequately protected and there are adequate fish populations. The concern expressed and resulting operational restrictions and monitoring requirements are, at least in part, intended to address infrequent naturally occurring conditions of low flow and high temperature which are not caused by the project, which would create arguably adverse effects even in a naturally flowing stream without impoundments.

MPM notes that the conditions of the WQC are extensive and highly detailed and MPM continues to evaluate the financial and operational implications of the conditions. Below are our comments at the present time, but MPM's comments may change when our evaluation has been completed.

Conditions E-1 through E-6

MPM has no specific comments relative to these conditions, at this time.

Condition E-7

MPM notes that Condition E-7 requires a copy of the WQC and the approved Operation and Maintenance Plan (required by Condition E-10) be posted within each Project powerhouse within seven days of issuance of a new license. MPM does not take issue with this requirement of the WQC, but suggests modification of the timing. Given that Condition 10 requires MPM to submit an Operation and Maintenance Plan within two months of the effective date of a new license, MPM proposes to post a copy of the approved plan within seven days of receiving written approval of the plan from NHDES.

Condition E-8

This condition requires that MPM provide NHDES with notification and obtain prior written approval before transfer of the WQC for the Project. FERC has jurisdiction over the transfer of FERC licenses. Prior to transferring ownership of the FERC license MPM would be required to submit an application for transfer of license to FERC for approval. Upon receipt of such an application, FERC issues a public notice to commence a 30 day period to file comments and motions to intervene. MPM feels this process is sufficient for NHDES to review transfer of Project and WQC ownership rather than require MPM to complete an additional, duplicative review and approval process specific to the WQC. MPM suggests that this condition be limited to requiring MPM to specifically notice NHDES of the FERC application for transfer of the license or to delete this condition in its entirety.

Condition E-9

Condition E-9 describes the following requirements relative to draw downs of Powder Mill Pond, refill provisions, and minimum flow requirements.

a. January 1 – February 28; May 1 – August 31 – outflow will equal inflow
b. January 1 – February 28; May 1 – August 31 – pond level 677.44; March – April; September – December – 2 foot draw and 3 foot draws no more than 2% of the time over five year period or 7 days/year
c. Draw down rate of no more than 6 inches/day
d. Flashboards be reinstalled as soon as possible
e. Approval for maintenance drawdown (60 days in advance or notification of emergency within 24 hours)
f. 30 day notification for drawdown below 2 feet. 24 hour notification if emergency.
g. 70 cfs min flow below Powdermill and below confluence of Paper Mill bypass and tailwater. Subject to change pending additional WQ monitoring.
h. 13 cfs minimum flow in Monadnock, Pierce and Paper Mill bypass reaches; Subject to change pending additional WQ monitoring.
i. Refill rates of 70/20 when inflow is greater than 90 cfs; 75/25 between 90 and 13; and 100/0 below 13 cfs inflow. Refill multiple ponds requires prior consultation.

MPM notes several components of these requirements that are problematic as discussed below.

Powder Mill Pond Elevation Requirements

Condition E-9 a. and b. identifies impoundment level requirements similar to those identified in FERC's Environmental Assessment. MPM has the same concern regarding rigid timeframes that were expressed in our August 16, 2013 comments to FERC.

While MPM acknowledges the drawdown timeframes above are consistent with our proposed operations, we note that Powder Mill Dam flashboards are also subject to fail during winter and spring due to icing and flood flows. Therefore MPM requests that Condition E-9 be revised to include the following bold text:

> The Applicant shall maintain Powder Mill impoundment water surface elevation at or above 677.44 feet NGVD (top of the flashboards) from January 1 to February 28 and May 1 through August 31 **(or as close to these target dates as is practical based upon river conditions), when flashboards are in place or 675.44 feet NGVD when the flashboards have failed.**

On an annual basis river conditions may prevent MPM from safely replacing failed flashboards during the above noted timeframes for maintaining top of flashboard elevations. MPM does not oppose targeting the top of flashboard elevation and dam crest, respectively, during the time frames identified in draft WQC, but is concerned that the pond level elevations specified for absolute dates will be difficult and, at times, impossible to meet from year to year depending on river flow and icing conditions. Therefore, the Operation Compliance Monitoring Plan that will be required by FERC should address Commission and agency notification procedures during such occurrences, if appropriate.

MPM also notes that Condition E-9(d.) requires that flashboards be reinstalled as soon as possible after failure or temporary removal for other reasons. MPM suggests that this language be modified to require that flashboards be reinstalled as soon as reasonably practicable.

Drawdown Rate

Condition E-9 c. stipulates that except in the case of emergencies, the maximum drawdown rate of Powder Mill Pond shall be no more than six (6) inches per day. MPM does not feel this requirement is required for the protection and propagation of wildlife resources given the overall project operating conditions. Should the pond be drawn down for the purposes of supplementing hydroelectric generation, the rate will be relatively constant and steady, with the intent that inflow to the pond will allow the pond to be refilled quickly without prolonged periods of draw down. Limiting a two foot draw down to six inches per day may effectively limit MPM's ability to supplement generation to a six inch draw down and/or prolong the drawdown period to last four days to achieve a two foot draw.

Notification Requirements

Conditions E-9 e. and f. of the draft WQC stipulates that MPM must notify and receive approval from NHDES and NHFGD to draw down the pond for maintenance or to below two feet for any reason, unless under emergency conditions. This requirement for maintenance requires 60 day prior notice and for drawdown greater than two feet requires 30 day prior notice. MPM notes that under the current license, MPM is allowed to conduct such drawdowns and provides state and federal agencies (including FERC's New York Regional Office) with notification at least 60 days prior. The notification identifies the level of drawdown necessary, timing and duration, method for ensuring minimum flow requirements are met during the drawdown, and the opportunity for agencies to respond to the notification. In addition, MPM notifies abutting property owners as a courtesy prior to drawdowns. This provision allows agencies to assess whether timing of drawdowns pose any concern and provides an opportunity to contact MPM to discuss any concerns and potentially modify the timeframe of the planned drawdown. Therefore, MPM does not believe the "approval" condition is necessary or appropriate. Furthermore, the condition does

not specify a time for response, which makes it virtually impossible for MPM to plan and contract for such maintenance.

Minimum Flows
Conditions E-9 g. and h. identify minimum flow requirements of 70 cfs in the reaches below Powder Mill Pond and downstream of the Project and 13 cfs in the Monadnock, Pierce and Paper Mill bypass reaches. The conditions state that these flows are subject to change pending additional WQ monitoring. Please see comments below relative to additional sampling under Condition E-12.

MPM is pleased to see and continues to believe that historic and in draft minimum bypass reach flows provide sufficient habitat in the very limited area of the bypass reaches to meet the standard of adequately protecting environmental resources.

Impoundment Refill

Condition E-9 i. defines various refill and downstream flow requirements depending in inflow conditions. MPM has refilled impoundments for the Project by maintaining minimum flow requirements and retaining the remainder of inflow to refill the impoundments. If we are required to release a higher percentage of inflow during refill under the new WQC, under low flow conditions pond refill may potentially take significantly longer. MPM believes there is very little demonstrable benefit and the potential for a variety of unwanted consequences, from both operational and environmental perspectives, from this modification. It is MPM's intent to refill the impoundments as quickly as possible to minimize environmental effects as well as effects on abutting shoreline owners. Therefore, MPM continues to support utilizing our historical refill method.

Emergencies

There are several references to operating emergencies (such as flashboard failure due to high flows). MPM notes that other conditions may also constitute emergency conditions that require drawdown. If extreme levels of precipitation are forecasted (e.g., Hurricane Irene), MPM may draw down the pond to reduce the potential for flooding. From MPM's perspective, any equipment failure resulting in lost generation is an emergency condition. For example, if a unit goes down and needs to be dewatered to inspect/repair, pond levels may need to be reduced in order to safely access the unit. MPM will identify specific conditions that are considered emergencies in the Operation Compliance Monitoring Plan that will likely be required in the FERC license.

Condition E-10

a. Within two months of the effective date of the FERC license, MPM must submit for DES approval an Operation and Maintenance Plan.
b. Modifications to the plan require prior approval by DES.
c. Deviations from the plan require reporting within 24 hours.

MPM anticipates an Operation and Maintenance Plan to be required under the new FERC license and does not take issue with such a requirement within the WQC.

Condition E-11

Within three months of the effective date of the FERC license, MPM must submit for DES approval a monitoring and reporting plan for Impoundment Level and Flow.

MPM anticipates a plan for monitoring impoundment level, minimum flows, and operational data (turbine flows and generation) to be required under the new FERC license and does not take issue with such a requirement within the WQC. The WQC requires that, "To the maximum extent feasible, monitoring and recording of data shall be automated and collected continuously (i.e., at least every hour)." During the past several months, MPM has been investigating alternative methods to collecting these type of data at Project facilities. The cost of fully automating the Project to monitor and record flow and pond level data at the Project would currently be cost prohibitive. Therefore MPM will continue to investigate additional, more cost effective alternative.

Condition E-12

Within two months of the effective date of the FERC license, MPM must submit for DES approval and in consultation with DES, NHFGD and USFWS, a water quality Sampling and Analysis Plan (SAP).

Section D-9 of the WQC identifies a variety of conditions that may affect water quality within the Project, some of which were not sampled during relicensing due to river flow and operating condition. The results of the WQ study conducted for relicensing showed attainment of state standards throughout the project with the exception of limited occurrence on non-attainment in Powder Mill Pond, during near "worst case" conditions of low flows and high temperatures. Although Powder Mill Pond has been documented as an impaired river segment, this situation is believed to be due primarily to nutrient loading from upstream, a condition not caused by the Project and one which is likely to have been remedied by reductions in phosphorus loadings at two upstream wastewater treatment plants. MPM does not believe it appropriate to conduct an additional study in order to evaluate how a proposal to reduce impoundment fluctuation frequency and levels as are currently allowed and a reduction of upstream point source pollution may affect water quality at the project. MPM also notes that water quality sampling on the Contoocook River, upstream and downstream of the Project, has been historically conducted by the Volunteer River Assessment Program (VRAP) on behalf of the NHDES and is anticipated to continue to occur.

MPM notes that under very low flow conditions, the project is operated as it was during the relicensing studies, that is, the various developments cease generating at the noted minimum operational capacities and all downstream flow is passed over the dams. Based on these operating conditions and given the results of historical project operations and the relicensing studies, the need for additional studies in the tailraces and bypass reaches during low flows is unclear.

Condition E-13

Pending results of the SAP, MPM may be required to submit for DES approval a Remediation Plan.
See comments under Conditions E-12.

MPM also notes that a remediation plan is required if "it is apparent that operation of the activity contributes to the violation". MPM suggests that a remediation plan should only be required if operation of the activity is a substantial cause of the violation.

Condition E-14

a. Within six months of the effective date of the FERC license, MPM must submit for DES approval, an invasive plan species monitoring plan, including a provision for reporting to DES, NHFGD, USFWS and FERC.
b. MPM shall operate the project in a manner consistent with invasive species control efforts if requested by DES, NHFGD, or USFWS.

MPM believes that sufficient protocols are in place to minimize, to the extent possible, the spread of invasive species at Powder Mill Pond. NHDES has posted invasive species information at the NHFGD Boat Launch on Powder Mill Pond and has established the Weed Watchers program to assist in the identification, documentation, and removal of invasive species.

MPM is not opposed to developing a more formal monitoring plan to identify methods and frequency of monitoring based upon the existing cooperative process with NHDES to address invasive species, but as discussed in FERC's draft Environmental Assessment (EA), Staff analysis stated that there are no ongoing project-related effects known to be contributing to the spread of invasive species at the Project. Thus, MPM does not believe a licensee developed and implemented monitoring plan is necessary. Further, it is not clear what the NHDES may require for MPM to "operate the project in a manner consistent with invasive species control efforts". MPM submits that is necessary for such operating parameters to be defined by NHDES up front for MPM to reasonably evaluate the effects of any such requirements on the Project (e.g., limitations on generation) .

Condition E-15

This condition requires MPM to construct, operate, maintain and evaluate upstream and/or downstream fish passage facilities as may be prescribed under Section 18 of the Federal Power Act.

MPM understands it is a common FERC license requirement to require implementation of future fish passage prescriptions that may be required but the Department of the Interior as a reservation of prescriptive authority. However, given that there are no migratory fish management goals for the river currently or planned for the near future, and other barriers to future passage exist downstream of the Project, MPM does not feel this "reopener" condition is necessary or appropriate for the WQC.

If there are any questions or comments regarding this response, please contact me at (603) 588-8694 or by email at mlombardi@mpm.com.

Sincerely,

Mark Lombardi
Vice President
Manufacturing